

## ABSTRACT

A rotation and extension/retraction link mechanism which realizes a rotary joint having a virtual rotation axis is provided. A rotation and extension/retraction link mechanism 1 is configured so that a first link 5 having a first virtual center line 3 and a second link 9 having a second virtual center line 7 are coupled through a rotation and extension/retraction joint mechanism 11. The rotation and extension/retraction joint mechanism 11 is configured to couple the first link 5 and the second link 9 so that when the second virtual center line 7 rotates relative to the first virtual center line 3 from a state where the first virtual center line 3 entirely overlaps with the second virtual center line 7, while crossing the first virtual center line 3, an intersection between the first virtual center line 3 and the second virtual center line 7 is displaced on the first virtual center line 3 by a predetermined distance corresponding to an angle of the rotation.